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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/779,365 | 02/08/2001 | George Henry Ahrens | AUS920000752US1 | 6047 |

35525 7590 04/28/2004
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EXAMINER

MCCARTHY, CHRISTOPHER S

| ART UNIT | PAPER NUMBER |
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2113

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,365

Applicant(s)

AHRENS ET AL.

Examiner

Christopher S. McCarthy

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,8-12,17,20-24 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7,13-16,18,19,25-29 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Response to Arguments.

DETAILED ACTION

1. Claims 1-4, 6-7, 13-16, 18-19, 25-29, 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Houston et al. U.S. Patent 6,493,656, as cited in prior office action, which was mailed on 2/23/2004.
2. Claims 5, 8-12, 17, 20-24, 30 are allowed.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-7, 13-16, 18-19, 25-29, 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Houston et al. U.S. Patent 6,493,656.

As per claim 1, Houston teaches a method for reporting bit line or driver failures, comprising of detecting a predetermined number of consecutive correctable errors (column 8, lines 60-67, 45-50); storing a description for each of the predetermined number of correctable errors (column 8, lines 37-39); determining whether the descriptions for the predetermined number of correctable errors are the same (column 8, lines 60-67); and reporting a bit line or

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driver failure if the descriptions for the predetermined number of correctable errors are the same (column 2, lines 49-54; column 8, lines 45-50).

As per claim 2, Houston teaches the method of claim 1, wherein the step of detecting a predetermined number of correctable errors comprises performing a periodic scan for a processor (column 11, lines 39-56).

As per claim 3, Houston teaches the method of claim 1, wherein the step of storing a description for each of the predetermined number of correctable errors comprises storing the descriptions in an error data structure (column 8, lines 60-67; column 10, lines 55-57; column 9, lines 25-46).

As per claim 4, Houston teaches the method of claim 3, wherein the error data structure comprises an error table (column 9, lines 25-46).

As per claim 6, Houston teaches the method of claim 1, wherein the step of reporting a bit line or driver failure comprises of creating an error log; and returning the error log to an operating system (column 8, lines 35-44).

As per claim 7, Houston teaches the method of claim 1, wherein the predetermined number is five (column 8, lines 62-64).

As per claim 13, Houston teaches an apparatus for reporting bit line or driver failures, comprising of detection means for detecting a predetermined number of consecutive correctable errors (column 8, lines 60-67, 45-50); storage means for storing a description for each of the predetermined number of correctable errors (column 8, lines 37-39); determination means for determining whether the descriptions for the predetermined number of correctable errors are the same (column 8, lines 60-67); and reporting means for reporting a bit line or driver failure if the

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descriptions for the predetermined number of correctable errors are the same (column 2, lines 49-54; column 8, lines 45-50).

As per claim 14, Houston teaches the apparatus of claim 13, wherein the detection means comprises performing a periodic scan for a processor (column 11, lines 25-46).

As per claim 15, Houston teaches the apparatus of claim 13, wherein the storage means comprises an error data structure (column 8, lines 60-67; column 10, lines 55-57; column 9, lines 25-46).

As per claim 16, Houston teaches the apparatus of claim 15, wherein the error data structure comprises an error table (column 9, lines 25-46).

As per claim 18, Houston teaches the apparatus of claim 13, wherein the reporting means comprises means for creating an error log; and means for returning the error log to an operating system (column 8, lines 35-44).

As per claim 19, Houston teaches the apparatus of claim 13, wherein the predetermined number is five (column 8, lines 62-64).

As per claim 25, Houston teaches an apparatus for reporting bit line or driver failures, comprising of a processor (column 5, lines 11-12); and a memory, coupled to the processor, having stored therein an error data structure (column 8, lines 39-44), wherein the processor detects a predetermined number of consecutive correctable errors (column 8, lines 60-67, 45-50), stores a description for each of the predetermined number of correctable errors in the error data structure (column 8, lines 37-39), determines whether the descriptions for the predetermined number of correctable errors are the same (column 8, lines 60-67), and reports a bit line or driver

failure if the descriptions for the predetermined number of correctable errors are the same (column 2, lines 49-54; column 8, lines 45-50).

As per claim 26, Houston teaches the apparatus of claim 25, wherein the processor detects a predetermined number of consecutive correctable errors by performing a periodic scan for the processor (column 11, lines 25-46).

As per claim 27, Houston teaches the apparatus of claim 25, wherein the error data structure comprises an error table (column 9, lines 25-46).

As per claim 28, Houston teaches the apparatus of claim 25, wherein the processor reports a bit line or driver failure by creating an error log, and returning the error log to an operating system (column 8, lines 35-44).

As per claim 29, Houston teaches the apparatus of claim 25, wherein the predetermined number is five (column 8, lines 62-64).

As per claim 31, Houston teaches a computer program product, in a computer readable medium, for reporting bit line or driver failures, comprising of instructions for detecting a predetermined number of consecutive correctable errors (column 8, lines 60-67, 45-50), instructions for storing a description for each of the predetermined number of correctable errors (column 8, lines 37-39); instructions for determining whether the descriptions for the predetermined number of correctable errors are the same (column 8, lines 60-67); and instructions for reporting a bit line or driver failure if the descriptions for the predetermined number of correctable errors are the same (column 2, lines 49-54; column 8, lines 45-50).

Response to Arguments

4. Applicant's arguments filed 4/5/2004 have been fully considered but they are not persuasive.

The applicant argues that Houston does not disclose the step of detecting a predetermined number of consecutive correctable errors. The examiner respectfully disagrees. As cited in the prior office action, Houston teaches, in column 8, lines 60-67, each error is placed into the data structure in a circular fashion with a pointer pointing to the most recent error. Furthermore, column 9, lines 1-5, teach wherein, the first error is logged into the first error log, the second is logged into the second error log, etc. until five entries are received. The examiner interprets these teachings to fulfill the step of logging five consecutive errors, as claimed in the present invention. Since each error is the one subsequent to the next, it is interpreted as being in succession and consecutive. Therefore, all applicable rejected claims stand.

The applicant also argues that Houston does not disclose the consecutive errors to be correctable errors. The examiner respectfully disagrees. As stated in the personal interview with the applicant's representative, Houston does not distinguish correctable errors from any and all errors (see Houston claims, in which errors are neither said to be correctable or uncorrectable). Furthermore, Houston teaches, column 8, lines 45-50, that errors can be of many types, only one being listed as uncorrectable. Since Houston does distinguish, in this passage, that one type of error is uncorrectable, it is deduced that the others are feasibly not uncorrectable and, therefore, correctable. This deduction, along with the response above concerning consecutive errors, teaches the concept of consecutive correctable error reporting of the present invention. While Houston does not implicitly teach the consecutive errors to be correctable, Houston does teach the categories of errors, of which, correctable errors are a type. Therefore, the possibility of the

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five consecutive errors all being of a correctible type is plausible. Therefore, all applicable rejected claims stand.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (703)305-7599. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703)305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csm
April 26, 2004


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